

ABSTRACT

An electric power line characteristic apparatus and monitoring method allows automatic conductor current data logging of maximum current magnitudes and data storage for later retrieval in a remote electric power line conductor faulted circuit current monitoring system 2. The apparatus and method includes, from a remotely located exciter 3 apparatus using an antenna 5 to transmit a specific frequency and code key to an antenna 10 of an electric power line conductor faulted circuit current monitoring apparatus associated with the electric power line phase conductor. Additionally the method and apparatus includes a delay circuit to allow a fixed delay time before the faulted circuit monitor responds to the instantaneous re-application of power to the conductor after a fault. This fixed period of time for the current to settle to a nominal value constitutes an inrush delay time before the faulted circuit monitor responds to the current level flowing in the power line. The apparatus and method further includes the step of, at the conductor fault current monitor, in response to a specific frequency and code key, transmitting a specific signal in response to convey data. The data are received at the exciter and stored into the memory of the exciter for later downloading to a host PC. The apparatus and method collects data from multiple faulted circuit monitors in the exciter and stores the data.

